FACILITY RESPONSE PLANNING

About the Compliance Assistance Guides...

The U.S. Environmental Protection Agency (EPA) has prepared this series of guides for owners and operators of oil facilities to help you better understand the Federal Oil Pollution Prevention regulation. This regulation has two sets of requirements -- the Spill Prevention Control and Countermeasure (SPCC) plan rule (an oil spill *prevention* program), and the Facility Response Plan (FRP) rule (an oil spill *response* program). You *must* comply with these requirements if you meet the applicability provisions set out in each rule. You can find the Federal Oil Pollution Prevention regulation in Title 40 of the Code of Federal Regulations (CFR) part 112 (40 CFR part 112). The CFR is available at Federal Depository Libraries around the country, many of which are on the campuses of major colleges and universities. The CFR is also available online at **http://www.gpo.gov**. Be aware that the series is *guidance* only; you should review the regulation if you think it applies to you.[1] A complete list of Oil Spill Program outreach guides and information on obtaining them appears in the "Compliance Assistance Guides" section at the end of this document. Or you may find the series at EPA's Oil Spill Program Website at **http://www.epa.gov/oilspill**.

This guide, *Facility Response Planning*, describes the preparation and submission of an FRP. Before reading this guide, you should read the *Introduction and Background to the Oil Pollution Prevention Regulation*, in the Compliance Assistance Guides.

Do I have to prepare and submit an FRP?

Congress passed the Oil Pollution Act (OPA) in 1990, amending §311 of the Clean Water Act (CWA) to require the owners and operators of "substantial harm" facilities to develop and implement FRPs. The EPA's FRP requirements, published as a final rule in the Federal Register on July 1, 1994, and codified at 40 CFR 112.20 and 112.21, include Appendices A through F. The FRP rule requires that "the owner or operator of any non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines shall prepare and submit a facility response plan to the Regional Administrator."

When EPA is considering whether a facility may affect U.S. navigable waters or the adjoining shoreline, it considers only the geography and location of the facility. It does not consider manmade features such as dikes, equipment, or other manmade structures that may contain spilled oil, or divert it from reaching the navigable waters or shoreline. Therefore, the majority of facilities in the U.S. have the potential to discharge to navigable waters or the shoreline.

The FRP rule applies to a subset of SPCC-regulated facilities: those that could cause substantial harm to the environment. There are two ways in which your facility may be classified as a substantial harm facility. First, you may make this determination through the initial screening outlined in 40 CFR 112.20(f)(1). Second, an EPA Regional Administrator (RA) may determine that your facility poses substantial harm to the environment. Some of the factors an RA will consider include the following:

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[1]This guidance is based on the existing SPCC/FRP rule and policies in effect December 31,1998. This guidance may change as the SPCC rule is revised.

- Type of transfer operation;
- Oil storage capacity;
- Presence of secondary containment;
- Proximity to fish and wildlife and sensitive areas and other areas determined by the RA to possess ecological value;
- Proximity to drinking water intakes;
- Spill history; and
- Other site-specific characteristics and environmental factors that the RA determines to be relevant.

If an oil spill from your non-transportation related fixed facility could reasonably be expected to cause "substantial harm" to the environment from a discharge to U.S. navigable waters or the adjoining shoreline, you *must* prepare and submit an FRP to EPA for review.

What makes an FRP successful?

The following components all contribute to a successful plan:

- Scenario-based plan development;
- Preparation of risk analyses of the areas in question;
- Identification of several scenarios that require different levels of response;
- Development of strategies to respond to each scenario; and
- Identification and provision of resources necessary to respond to each scenario.

A successful facility-specific response plan helps owners and operators develop a response organization and identify the resources needed to respond to an oil spill adequately and in a timely manner.

Who Benefits from an FRP?

- Facility owners and operators benefit from an effectively implemented FRP. Having an FRP facilitates your expeditious response to an oil spill, thereby reducing a spill's impact and severity. The FRP also assists your staff in improving spill prevention measures through the early identification of risks at the facility.

- EPA and other government agencies benefit from FRPs. FRPs assist agencies in identifying the

distribution and capacity of the response contractor industry for planning purposes and private resources for spill response.

- Regional, state, and local response authorities benefit from FRPs. Local and regional response authorities better understand the potential hazards and response capabilities in their area, and reduce risk to the community because they have access to the information contained in the Plan.

What is an Oil?

Under § 311(a)(1) of the Clean Water Act (CWA) "oil" is "oil of any kind or in any form including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil." EPA interprets oil to include crude oil, petroleum and petroleum-refined products, and non-petroleum oils like vegetable and animal oils. Under the CWA, a substance that industry may not recognize as an oil (e.g., mineral oil) may be an oil for statutory purposes.

"Oil" is also defined under other statutes including Title I of the Oil Pollution Act of 1990 (OPA). Currently, overlapping regulatory interpretations of "oil" exist. EPA's Oil Spill Program and the U.S. Coast Guard (USCG) are developing a nationally consistent policy and method to help you determine what substances are oils under the CWA. Work closely with EPA and the USCG (as appropriate) to determine if substances you store, transfer, or refine, are "oils."

Facility Response Plans must:

- Be consistent with the National Contingency Plan and Area Contingency Plans.
- Identify a qualified individual having full authority to implement removal actions, and require immediate communication between that person and the appropriate federal authorities and responders.
- Identify and ensure availability of resources to remove a worst case discharge.
- Describe training, testing, unannounced drills, and response actions of facility personnel.
- Be updated periodically.
- Be submitted for approval with each significant change.

What are the substantial harm criteria?

Your facility is a "substantial harm" facility if it meets either of two sets of criteria -- one involving transfer over water, and the other involving the oil storage capacity and other factors.

♦ ***Over Water Transfers***

To determine if your facility meets the "over water transfer" criteria, ask yourself the following question.

Does your facility have a total storage capacity greater than or equal to 42,000 gallons and transfer oil over water to or from vessels? If you answer "yes" to this question, then your facility is a substantial harm facility and you *must* prepare and submit an FRP. (As defined in 40 CFR 112.2, "vessel" means any type of watercraft, other than a public vessel, capable of being used as a means of transportation on water.) To determine your facility's total storage capacity, add the capacities of all oil storage containers (e.g., drums, tanks, electrical equipment), regardless of their size.

♦***Capacity of at Least One Million Gallons***

If you answered "no" to this question, you need to determine whether your facility has a total storage capacity greater than or equal to one million gallons. If your facility does not have a storage capacity greater than or equal to one million gallons, then you do not have to prepare and submit an FRP.

If you answered "yes" to the above question, you need to evaluate the following criteria. If your facility has a total storage capacity greater than or equal to one million gallons and meets one or more of the criteria listed below, you *must* prepare and submit an FRP.

Secondary Containment. Unless you have installed a secondary containment at your one million gallon facility large enough to hold the capacity of the largest aboveground storage tank (AST); the facility is a substantial harm facility. The secondary containment area *must* hold the capacity of the largest AST within that area plus freeboard sufficient to contain the rainfall from a 100 year, 24-hour storm event. Secondary containment may include the following preventive systems or equivalent systems:

- Dikes, berms, or retaining walls sufficiently impervious to contain spilled oil;
- Curbing;
- Culverting, gutters, or other drainage systems;
- Weirs, booms, and other barriers;
- Spill diversion ponds; and
- Retention ponds.

Fish and Wildlife and Sensitive Environments. If a spill from your one million gallon facility may cause "injury" to fish and wildlife and sensitive environments, the facility is a substantial harm facility. Under,

40 CFR 112.2, "injury" means a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource. The change can result either directly or indirectly from exposure to a discharge of oil; from exposure to a product; or from reactions resulting from a discharge of oil.

You will have to check other sources to determine what constitutes a fish and wildlife and sensitive environmental area. (These areas are identified either by their legal designation or by evaluations of area committees or members of the federal on scene coordinator's (OSC) spill response structure.) These areas may be identified either because of sensitivity to the effects of a spill event or danger to human health. Examples of these environments include the following:

- Wetlands;
- National and state parks;
- Critical habitats for endangered species;
- Wilderness and natural resource areas;
- Marine sanctuaries and estuarine reserves;
- Conservation areas;
- Preserves;
- Wildlife areas;
- Wildlife refuges;
- Wild and scenic rivers;
- Recreation areas;
- National forests;
- Federal and state lands that are research natural areas;
- Heritage program areas;
- Land trust areas; and
- Historical and archeological parks.

If a spill from your one million gallon facility may affect a fish and wildlife and sensitive environment, the facility is a substantial harm facility. Calculate the distance that spilled oil could travel from your facility before it’s contained. Use the planning distance calculations. Identify all fish and wildlife and sensitive environments within the planning distance.

Appendices I, II, and III to Department of Commerce/National Oceanic and Atmospheric Administration's (DOC/NOAA's) Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments (59 FR 14713, March 29, 1994) contain additional information concerning fish and wildlife and sensitive environments.

Public Drinking Water Intakes. If a spill from your one million gallon facility may affect public drinking water intakes, the facility is a substantial harm facility. Calculate the distance that spilled oil could travel from your facility before it's contained. Use the planning distance calculations. Identify all public drinking water intakes within the planning distance.

Generally a system is a public water system if it provides piped water for human consumption and has at least 15 service connections or regularly serves at least 25 individuals. Public drinking water systems include collection, treatment, storage, and distribution facilities. To locate a downstream public drinking water intake, consult the appropriate Area Contingency Plan (ACP), and contact the municipal or county water authority for each area that may be effected by an oil spill from your facility.

Reportable Spills Greater than 10,000 Gallons. A facility for which there has been a reportable spill, a potentially harmful discharge that reaches navigable waters or adjoining shorelines, in an amount greater than or equal to 10,000 gallons within the last five years and that has a total storage capacity equal to or greater than one million gallons is a substantial harm facility.

Calculation of the Planning Distance (40 CFR 112, Appendix C, Attachment C-III)

♦ ***Calculating the "planning distance" for fish and wildlife and sensitive environments and public drinking water intakes***

Calculate the planning distance based on the types of transfers and the navigable water conditions applicable to a facility. (You can find the formulas for making these calculations in Appendix C, Att. C-III to 40 CFR part 112.) Briefly, distance calculation formulas apply to: moving navigable waters (based on the velocity of the water body and the time interval for arrival of response resources); still water (based on the spread of discharged oil over the surface of the water); tidally influenced areas (based on the type of oil spilled and the distance down-current during ebb tides and up-current during flood tides to the point of maximum tidal influence); and over land (based on the prospect of a spill on land entering a storm drain or open concrete channel leading to navigable water).

What is a complex?

♦ ***Complex Facilities***

If your facility is subject to multi-agency jurisdiction, and has a transportation-related and non-transportation-related component, it is a "complex." For example, your facility may have a transportation-related transfer area regulated by the U.S. Coast Guard (USCG) and a non-transportation-related oil storage area regulated by EPA. Similarly, for pipeline terminals, Office of Pipeline Safety (OPS) regulates

the transportation-related portion of the pipeline running to or from a fixed facility. EPA regulates the terminal and transfer sites within the facility. A summary of the different agency responsibilities for a "complex" follows:

- EPA is responsible for non-transportation-related facilities located landward of the coastline[2] (inland lakes and rivers, including certain piping and coastal areas landward of the low water mark).

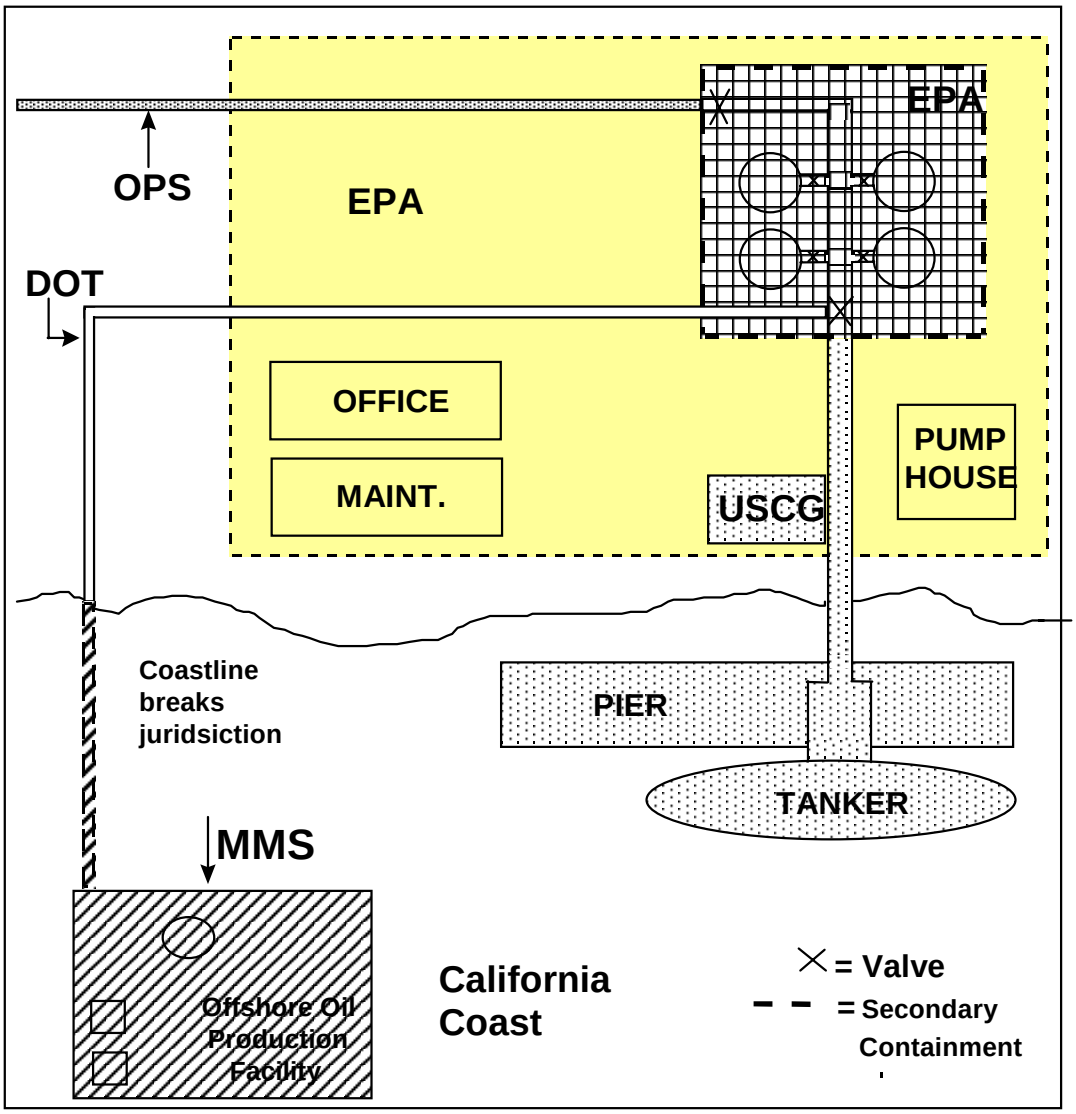
- Department of the Interior's (DOI) Mineral Management Service (MMS) is responsible for offshore non-transportation-related facilities located seaward of the coastline, including certain pipelines.

- Department of Transportation's (DOT) USCG is responsible for deepwater ports and fixed offshore facilities (marine transportation-related offshore facilities located landward of the coastline).

- DOT's OPS handles all onshore pipelines.

[2] The term "coastline" means "the line of ordinary low water along the portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters," e.g., low tide. Along the Gulf Coast, this line has been determined by the courts and runs along the coastal barrier islands. The jurisdiction over facilities along the coastline of the State of Alaska is determined case-by-case by MMS.

Figure 3: A Case Study on Multiple Agency Responsibility



OPA Jurisdiction of Federal Agencies. Jurisdictional boundaries are delineated by the location of valves along the pipelines leading to and from the oil storage facility. Note that these valves must reside within the containment of the storage tank area.

In Figure 3, EPA is responsible for the facility, except for the piping and pipelines; these are within the jurisdiction of the USCG, OPS, and MMS. OPS has jurisdiction over the inland pipeline. Seaward of the low water mark, MMS is responsible for the offshore non-transportation-related facility, and the offshore pipeline from the platform to the coastline. USCG is responsible for the marine transfer component, including the pipeline from the storage tank area to a vessel or barge.

What are the key elements of an FRP?

As you prepare your FRP, be sure that your plan includes the following elements:

- Emergency Response Action Plan (an easily accessible stand alone section of the overall plan).

The PREP guidelines:

USCG-X0191 and the Training Reference for Oil Spill Response: USCG-X0188 are available by mail or fax.

TASC Department Warehouse
3341Q 75th Avenue
Landover, MD 20785
FAX: (301) 386-5394

When requesting copies, please indicate the document

- Facility name, type, location, owner, and operator information.
- Emergency notification, equipment, personnel, and evacuation information.
- Identification and evaluation of potential spill hazards and previous spills.
- Identification of small, medium, and worst case discharge scenarios and response actions.
- Description of discharge detection procedures and equipment.
- Detailed implementation plans for containment and disposal.
- Facility and response self-inspection; training, exercises, and drills; and meeting logs.
- Diagrams of facility and surrounding layout, topography, and evacuation paths.
- Security measures including fences, lighting alarms, guards, emergency cutoff valves, and locks.

You can meet the requirement under 40 CFR 112.21 to develop and implement a program of response drills and exercises, including evaluation procedures, by implementing a program modeled after the National Preparedness for Response Exercise Program (PREP).

The final PREP Guidelines booklet (publication number USCG-X0191) and the Training Reference for Oil Spill Response (publication number USCG-X0188) are available at no charge. To get a copy of these documents, mail your request to TASC Department Warehouse, 3341 Q 75th Avenue, Landover, MD

20785 or fax your request to (301) 386-5394.

For more information, contact the National Strike Force Coordination Center at 2100 2nd Street, SW, Washington, DC 20593-0001.]

What do you need to do to maintain your facility's Response Plan?

Under 40 CFR 112.20(g), you *must* review your response plans periodically to ensure consistency with the National Contingency Plan (NCP) and ACPs, and update the plan as appropriate. Submit the revised portions of the response plan within 60 days of each change that may materially affect the response to a worst case discharge or the implementation of the response plan. These changes may include:

- A change in the facility's configuration;
- A change in the type of oil handled, stored or transferred;
- A material change in capabilities of any oil spill removal organization that provides services to the facility; or
- A material change in the facility's spill prevention and response equipment or emergency response procedures.

What recordkeeping requirements do I need to satisfy?

If you determine that the response planning requirements under 40 CFR 112.20 are inapplicable to your facility, you *must* certify and maintain a record of this determination using 40 CFR part 112 Appendix C Attachment C-II.

You *must* maintain the response plan at your facility, along with plan updates reflecting material changes. You must also keep a log of response training drills and exercises. Keep these records for five years.

Where do I go for more information?

Compliance Assistance Guides

EPA's Compliance Assistance Guides are listed below. You can obtain these guides by contacting EPA Headquarters, any of the 10 EPA Regional Offices, or by visiting EPA's Oil Spill Program Website at **http://www.epa.gov/oilspill**.

- Introduction and Background to the Oil Pollution Prevention Regulation
- Who's Who: Federal Agency Roles and Responsibilities for Oil Spill Prevention and Response
- What to Expect During an SPCC/FRP Inspection
- Facility Response Planning
- Sample SPCC Plan and Sample Containment Volume Calculations
- SPCC Requirements and Oil Pollution Prevention Practices for Bulk Oil Storage Facilities
- SPCC Requirements and Oil Pollution Prevention Practices for Oil Production and Oil Drilling/Workover Facilities
- SPCC Requirements and Oil Pollution Prevention Practices for Farms and Ranches
- SPCC Requirements and Oil Pollution Prevention Practices for Mines and Quarries
- SPCC Requirements and Oil Pollution Prevention Practices for Vehicle Service Facilities
- Spill Prevention Requirements for Facilities Conducting Large Volume Transfer Operations
- Spill Prevention and Control for Marinas and Other Waterside Fueling Facilities
- Oil Spill Notification, Response, and Recovery